



Science Toolkit: Grade 7 Objective 4.A.1.c

Student Handout: Science: Grade 7 Objective 4.A.1.c

Standard 4.0 Chemistry

Topic A. Structure of Matter

Indicator 1. Cite evidence to support the fact that all matter is made up of atoms, which are far too small to see directly through a microscope.

Objective c. Provide evidence from the periodic table, investigations and research to demonstrate that elements in the following groups have similar properties.

Highly reactive metals, such as magnesium and sodium

Less-reactive metals, such as gold and silver

Highly reactive non-metals, such as chlorine, fluorine, and oxygen

Almost non-reactive gases, such as helium and neon

Selected Response (SR) Item

Question

Use [The Periodic Table of the Elements](#) and the information below to answer the following.

Magnesium metal (Mg) is grayish-white in color and reacts actively with water. Fluorine (F₂) is a greenish-yellow gas at room temperature and is a member of the halogen family. These two elements react to produce magnesium fluoride (MgF₂), a chemical commonly used in making windows and lenses.

According to the Periodic Table of the Elements, which element is most similar to magnesium (Mg)?

- A. calcium (Ca)
- B. iodine (I)
- C. sodium (Na)
- D. sulfur (S)

Correct Answer

A. calcium (Ca)

Question

Use [The Periodic Table of the Elements](#) and the information below to answer the following.

Magnesium metal (Mg) is grayish-white in color and reacts actively with water. Fluorine (F₂) is a greenish-yellow gas at room temperature and is a member of the halogen family. These two elements react to produce magnesium fluoride (MgF₂), a chemical commonly used in making windows and lenses.

According to the Periodic Table of the Elements, which element is most similar to magnesium (Mg)?

- A. calcium (Ca)
- B. iodine (I)
- C. sodium (Na)
- D. sulfur (S)

Handouts

The Periodic Table of the Elements